

15-57-5-5753

The Stratigraphy of the Paleozoic Rocks of the Southwestern (Cont.)

1) limestone, 2) clay shale and siltstone, 3) sandstone, 4) tuffaceous breccia, sandstone, siltstone, 5) acid volcanic rocks and related tuffs, 6) basic volcanic rocks and related tuffs, 7) hydrothermally altered rocks

Card 6/6

D. A. T.

HELIKOVA, Lyudmila Nikolayevna; DOMAREV, V.S., nauchnyy red.; KELAREV,  
L.A., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Hydrothermal rocks in the Bukhtarma region of the Rudnyy  
Altai] Gidrotermal'no-izmenennyye porody Bukhtarminskogo raiona  
Rudnogo Altaia. Leningrad, Gos.nauchn.-tekh.izd-vo neft. i  
gorno-topl. Lit-ry leningr. otd-nie, 1959. 77 p. (Leningrad.  
Vsesoluznyi geologicheskii institut. Trudy, vol. 25)  
(MIRA 14:2)

(Bukhtarma Valley—Rocks, Crystalline and metamorphic)

~~HEL'KOVA, L.N.~~

Genesis and age of acid porphyritic intrusions in Bukhtarma District  
in the Rudnyy Altai. Sov. geol. 2 no.6:55-59 Je '59.  
(MIRA 12:12)

1.Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut  
(VSEGEI).

(Bukhtarma District--Porphyry)

BEL'KOVA, L.N.; OGNEV, V.N.

Pre-Cambrian of Central Asia. Vest.LGU 16 no.24:17-29 '61.

(MIRA 14:12)

(Soviet Central Asia--Geology, Stratigraphic)

BEL'KOVA, L.N.; OGNEV, V.N.; TARASENKO, A.T., red.

[Ancient formations of the northern Tien Shan] Drevnie  
tolshchi Severnogo Tian'-Shania. Moskva, Nedra, 1964.  
135 p. (MIRA 17:11)

BEL'KOVA, M.M.

Results of variety testing in 1956. Trudy Kar.fil.AN SSSR no.17:  
87-96 '59. (MIRA 13:4)  
(Barley)

BELKOVA, M.M.

Morphologic features of wheat developed by the injection method.  
Trudy Kar. fil. AN SSSR no.29:8-15 '61. (MIRA 15:2)  
(Wheat breeding)

L 59237-65 EWT(a)/T/EWP(t)/IMP(b)/EWA(c) IJP(e) JD/30

ACCESSION NR: AP5015016

UR/0078/65/010/006/1374/1378/6  
546.654/669'137  
15  
B

AUTHOR: Bel'kova, M. M.; Alekseyenko, L. A.

TITLE: Rare earth perchlorates

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 6, 1966, 1374-1378

TOPIC TAGS: lanthanum perchlorate, cerium perchlorate, praseodymium perchlorate, neodymium perchlorate, samarium perchlorate, dysprosium perchlorate, holmium perchlorate, erbium perchlorate, ytterbium perchlorate, lutetium perchlorate, rare earth perchlorate, rare earth oxychloride, perchlorate stability, perchlorate lattice structure

ABSTRACT: The thermal stability of rare earth perchlorates was studied in order to determine its dependence on the cationic radii and on the state of the crystal lattice. Differential heating curves for crystal hydrates of La, Ce, Pr, Nd, Sm, Dy, Ho, Er, Yb and Lu perchlorates were recorded in the 0-500C temperature range. It was found that the dehydration of crystal hydrates of La, Nd, Dy, Yb and Lu perchlorates takes place in stages. The solid residue of the decomposition of these perchlorates after heating of the latter to 500C are oxychlorides of the composition MeOCl, where Me is the rare earth

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I. 59237-65

ACCESSION NR: AP5015015

metal (an exception is cerium perchlorate, which decomposes to the dioxide). The temperature of the start of decomposition was found to decrease in the order La, Nd, Sm, Dy, Ho, Er, Yb, Lu; this is attributed to an enhancement of the polarizing influence of the cation as the radius decreases. Aging of La, Nd and Sm perchlorate crystals causes a rise in the temperature of the start of decomposition; this may be explained by an ordering of the crystal lattice. It was found that preheating to a temperature 20 to 30C below the decomposition temperature of the perchlorates, followed by rapid cooling of the preparation, causes a decline in thermal stability owing to the fixation of the defects in the crystals. Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: Kafedra neorganicheskoy khimii, Tomskiy gosudarstvennyy universitet im. V. V. Kuybysheva (Department of Inorganic Chemistry, Tomsk State University)

SUBMITTED: 08Oct64

ENCL: 00

SUB CODE: IC

NO REF SOV: 014

OTHER: 009

Card

*dm*  
2/2

L 28822-66 EEC(k)-2/EWA(h)/EWT(1)

ACC NR: AP6007161

SOURCE CODE: UR/0115/65/000/012/0013/0016

AUTHOR: Antonov, V. V.; Polisskiy, Yu. D.; Tsingaus, V. Kh; Grigor'yev, Ye. G. 42  
Belkova, M. M. B

ORG: none

TITLE: Some methods for eliminating the error due to sweep nonlinearity in photo-pulse devices 15

SOURCE: Izmeritel'naya tekhnika, no. 12, 1965, 13-16

TOPIC TAGS: photoelectric cell, industrial automation, error minimization

ABSTRACT: A photoelectric system of automatic control of rolling-mill-product dimensions is considered; specifically, the error due to nonlinearity of the mechanical sweep of the  $\Pi$ -shaped pulse is analyzed, and these two methods for the error elimination are suggested: (1) Generation of a nonuniform sequence of filling scale pulses by an LC-oscillator; (2) Same, by an RC-oscillator. In the first method, the scale-pulse frequency is calculated by a variable capacitor whose plates are shaped to compensate for the nonlinearity of the sweep. In the second case, the same results are achieved by calculating a luminous flux falling on a photoresistor or by calculating the intensity of a light source. Only the theory of the methods is presented. Orig. art. has: 5 figures and 22 formulas.

SUB CODE: 091/ SUBM DATE: none / ORIG REF: 001

Card 1/1 21

UDC: 621.373.431.2.088:531.71

L 09980-67 \ EWT(m)/EWP(t)/ETI IJP(c) JD/JG  
ACC NRI: AP6034152 SOURCE CODE: UR/0076/66/040/010/2546/2550

AUTHOR: Bel'kova, M. M.; Alekseyenko, L. A.; Serebrennikov, V. V. 57

ORG: Tomsk State University im. V. V. Kuybyshev (Tomskiy gosudarstvennyy universitet)

TITLE: The kinetics of the thermal decomposition of perchlorates of the rare earth elements yttrium, scandium, and aluminum

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 10, 1966, 2546-2550

TOPIC TAGS: rare earth perchlorate, perchlorate, perchlorate combustion, combustion, combustion kinetics

ABSTRACT: The kinetics of the thermal decomposition of aluminum and rare-earth perchlorates (Sc, Y, La, Ce, Sm, Gd, Ho, Yb, Lu,) was studied in nitrogen at 290-350C. Plots of the amount of decomposition vs time were obtained and the activation energies and rate constants calculated. The results are shown in Table 1. The table shows that the rate constants increase and the activation energies decrease in the series from La to Al and from La to Lu. This is connected

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UDC: 541.17+655.39+543.277+661.492

L 09980-67

ACC NR: AP6034152

Table 1. Rate constants and activation energies

Per-chlorate	t, °C	A	E, Kcal/mol	Per-chlorate	t, °C	A	E, Kcal/mol
Al	240	0,03359	19,8	Sm	320	0,01321	28,8
	250	0,05403			330	0,02301	
	260	0,07042			340	0,02951	
	270	0,09456			350	0,04094	
	290	0,19360			Gd	290	
Sc	240	0,03027	20,9	300		0,01036	28,8
	250	0,08175		320		0,03031	
	260	0,07973		330		0,03321	
	270	0,09968		340		0,06112	
Y	290	0,29850	27,8	Ho	350	0,06469	26,0
	280	0,01406			260	0,01508	
	290	0,02532			280	0,02235	
	320	0,04951			290	0,03402	
La	330	0,08375	34,1	Yb	300	0,06998	25,3
	340	0,12130			320	0,15010	
	330	0,00862			330	0,16430	
	340	0,00958			350	0,42800	
Ce	350	0,01670	25,3	Lu	260	0,02601	25,1
	370	0,07290			270	0,04105	
	240	0,01175			280	0,06362	
	260	0,01539			290	0,10300	
	280	0,02036			320	0,29840	
	290	0,02690			330	0,36160	
	300	0,05222			290	0,08279	
310	0,06976	300	0,16630				
320	0,46680	310	0,21850				

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L 09980-67

ACC NR: AP6034152

with the decrease in thermal stability due to the increase of the polarizing action of the cation. At 280C, the mechanism of the thermal decomposition of Ce changes. Orig. art. has: 4 figures, 5 formulas, and 1 table.

SUB CODE: 07/ SUBM DATE: 31Aug65/ ORIG REF: 007/ OTH REF: 004/  
ATD PRESS: 5105

Card: 3/3 *bhp*

*PL-1100 H.Y.E.H.*  
DAYNEKO, Z.N.; GORELIK, B.A.; BEL'KOVA, Ye.A.; YARESHCHENKO, A.M.

Lighten the work of the chief cooker operator. Gidroliz. i lesokhim. prom.  
10 no.8:21-22 '57. (MIRA 10:12)

1. Bobruyskiy gidroliznyy zavod.  
(Hydrolysis)

HEL'KOVA, Ye.A.; FRIDBURG, I.M.

Device for boring sleeves of hydrolysis apparatus. Gidroliz.  
i lesokhim. prom. 14 no.5:23 '61. (MIRA 16:7)

1. Bobruyskiy gidroliznyy zavod.  
(Hydrolysis)

BEL'KOVA, Ye.A.

Improvement in the technique of washing containers for carbon dioxide. *Gidroliz. i lesokhim. prom.* 14 no.8:23 '61.

1. Bobruyskiy gidroliznyy zavod.

(MIRA 16:11)

BEL'KOVA, Ye.A.

Creative initiative. *Gidroliz. i lesokhim. prom.* 16 no.2:26  
'63. (MIRA 16:6)

1. Bobruyskiy gidroliznyy zavod.  
(Bobruysk--Hydrolysis)

BEL'KOVA, Ye.A.

Precipitation of suspended and colloidal substances from  
neutralizates by means of polyacrylamide. *Gidroliz. i*  
*lesokhim. prom.* 17 no.4:20 '64 (MIRA 17:7)

1. Bobruyskiy gidroliznyy zavod.

132/R004, Ye.N  
BELKOVA, Ye.N

Naval multiple bathometer. Trudy NIIGMP no. 4:112-113 '57.  
(Hydrology--Measurements)

(MIRA 11:2)

BELKOVA, Ye.N.

Binocular wavemeter-perspectometer. Trudy NIIGMP no.7:132-146  
'59. (Waves) (Oceanographic instruments) (MIRA 13:5)

~~BEL' KOVICH, A. A.~~

Synthetic rubber industry in the United States. Kauch. i rez. no. 1:  
45-46 Ja '57. (MLRA 10:4)

(United States--Rubber, Synthetic)

BEL'KOVICH, A.A.

Tire industry in the United States. Kauch. i rez. 16 no.2:38 P 157.

(United States--Automobiles--Tires)

(MIRA 12:3)

GHISTYAKOV, F.M.; SUTYRINA, T.M.; PERSTNEV, P.V.; RUMYANTSEV, V.A.,  
retsensent; TSYRLIN, B.L., retsensent; BEL'KOVICH, A.V.,  
red.; GROMOV, A.S., tekhn. red.

[Freon refrigeration turbosystem; installation, construction,  
and operation] Freonovyi kholodil'nyi turboagregat; ustroistvo,  
montazh, ekspluatatsiia. Moskva, Gos. izd-vo torgovoi lit-ry,  
1962. 101 p. (MIRA 15:5)  
(Refrigeration and refrigerating machinery)

MARKOVA, Klavdiya Danilovna; SHKOL'NIKOVA, Yelizaveta Fedorovna;  
BEL'KOVICH, A.V., red.; ANTSELOVICH, K.I., tekhn. red.

[Technology of the refrigeration of food products] Kholodil'-  
naia tekhnologiia pishchevykh produktov. Moskva, Gostorgizdat,  
1962. 156 p. (MIRA 15:11)  
(Food—Preservation) (Cold storage)

ONISHCHENKO, Nikolay Pavlovich; BEL'KOVICH, A.V., red.; VOLKOVA,  
V.G., tekhn. red.

[Safety measures in ammonia system refrigeration plants]  
Tekhnika bezopasnosti na ammiachnykh kholodil'nykh ustanov-  
kakh; prakticheskoe rukovodstvo dlia mashinistov. Moskva,  
Gostorgizdat, 1963. 101 p. (MIRA 16:11)  
(Refrigeration and refrigerating machinery--Safety measures)

GLOBUS, L.M.; ZALESSKIY, V.A.; ISAYEV, K.N.; KOLGANOV, D.I.; VARFOLO-  
MEYEV, F.G., spetsial'nyy red.; BEL'KOVICH, A.V., red.;  
BRODSKIY, M.P.; tekhn. red.

[Hunting and fishing appliances; a handbook] Okhotnich'i i  
rybolovnye tovary; spravochnik. [By] L.M. Globus i dr.  
Moskva, Gostorgizdat, 1963. 135 p. (MIRA 16:6)  
(Fishing--Equipment and supplies)  
(Hunting--Equipment and supplied)

BEL'KOVICH, O.I.; URASIN, L.A.

Investigating the equipment for photographic observations of  
artificial earth satellites. Biul.sta.opt.nabl.isk.sput.Zem.  
no.3:10-15 '58. (MIRA 13:6)

1. Astronomicheskaya observatoriya im. Engel'gardta.  
(Astronomical photography--Apparatus and supplies)

BEL'KOVICH, O. I.; URASIN, I. A.

Visual and radar observations of a fireball. Astron. tsir. no. 208:29  
Ja '60. (MIRA 13:11)

1. Astronomicheskaya observatoriya im. V.P. Engel'gardta pri Kazan -  
skom gosudarstvennom universitete.  
(Meteors)

3.1710

<sup>41794</sup>  
S/194/62/000/008/079/100  
D271/D308

AUTHORS: Bel'kovich, O.I., and Sidorov, V.V.

TITLE: Recording of amplitude-frequency characteristics of meteor radio echoes

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1962, 44, abstract 8Zh298 (Tr. Gorodsk. astron. observ. Kazansk. un-ta, 1961, no. 33, 87-91 [Summary in Eng.])

TEXT: Modifications are described in the indicator equipment of the Astronomical Observatory imeni Engel'gardt which works on the International Geophysical Cooperation program. The modifications permit recording of amplitude-frequency characteristics of meteor radio echoes, as well as total duration of meteor echoes in any 5-minute interval, at two recording levels. [Abstracter's note: Complete translation.]

Card 1/1

BEL'KOVICH, O.I.

Determining the mean quadratic error of the observed number of meteors  
in a unit of time. Astron.zhur. 38 no.3:532-534 My-Je '61.  
(MIRA 14:6)

1. Astronomicheskaya observatoriya imeni Engel'gardta.  
(Meteors)

L 22425-65 EEO-2/FSF(h)/EWT(1)/EWJ(v)/EMA(d)/EBC-4/EEC(t)/EED-2 Pe-5/Pr-4/Pt-4/  
Fac-4/Fab-2/Pl-4/Pj-4/Pk-4/Pl-4 GI/NR

ACCESSION NR: AR5001313

S/0269/64/000/010/0050/0050

SOURCE: Ref. zh. Astronomiya, Ctdel'nyy vypusk, Abs. 10.51.339

AUTHOR: Kostylev, K. V., Pupyshev, Yu. A., Bel'kovich, O. I.

TITLE: Review of radar observations of meteors made at the Astronomicheskaya Ob-  
servatorii imeni Engel'gardta (Engel'gardt Observatory) in 1958-1960

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln, no. 1. Kazan', Kazansk. un-t,  
1963, 3-20

TOPIC TAGS: radioastronomy, radar, meteor tracking, upper atmosphere, meteor orbit

TRANSLATION: This article is a review of systematic radar observations of meteors.  
The investigations were made at the Astronomicheskaya Observatoriya imeni Engel'  
gardta (Engel'gardt Observatory) on 4.2- and 8.7 -m waves from 1958 to 1960. A  
fixed antenna ( $\lambda = 4.2$  m) and an azimuthally rotating antenna (with 30° jumps,  
stopping in each position for 5 minutes) were used. The authors discuss the di-  
urnal and seasonal variation of the number of meteors. Seasonal changes confirm  
the assumption that the earth passes through a broad zone of meteor orbits. There

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L 22425-65

ACCESSION NR: AR5001313

is an appendix containing tables of the mean monthly numbers of meteors for 1959  
for both wave-lengths. From authors' summary.

SUB CODE: AA, ES

ENCL: 00

Card 2/2

1-31056-55 EEO-2/PSS-2/ENT(1)/EWG(v)/EWA(d)/SEC-4/EEG(1)/EED-2 PG-4/PD-4/  
Pew-5/Pa-4/PA-4/Pj-4/Pk-4/Pj-4/Pae-2 G\*/HR

ACCESSION NR: AR5004872

S/0058/64/000/011/H062/H062

SOURCE: Ref. zh. Fizika, Abs. 11Zh385

62  
B

AUTHORS: Kostylev, K. V.; Bel'kovich, O. I.; Pupyshev, Yu. A.

TITLE: Survey of meteor radio observations made at the Engel'gardt  
Astronomical Observatory

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 1. Kazan',  
Kazansk. un-t, 1963, 3-20

TOPIC TAGS: meteor radar observation,<sup>24</sup> meteoric radio scatter,  
meteor orbit

TRANSLATION: A review is presented of systematic radar observations  
of meteors at the Astronomicheskaya observatoriya im. Engel'gardta  
(Astronomical Observatory) at wavelengths 4.2 and 8.7 meters from  
1958 through 1960. The observations were carried out with a station:

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L 31066-65

ACCESSION NR: AR5004872

ary antenna ( $\lambda = 4.2$  m), and with an antenna rotating in azimuth in steps of  $30^\circ$  with subsequent standstill for five minutes ( $\lambda = 8.7$  m). The daily and seasonal variation of the meteor number is considered. The seasonal changes in the daily variation of the number of meteors confirm the assumption that the earth crosses a broad belt of meteoric orbits. An appendix contains tables of the mean monthly hourly numbers of meteors for 1959 at both wavelengths.

SUB CODE: AA, EC

ENCL: 00

Card

2/2

L 23299-65 EEO-2/FSF(h)/EWT(l)/EWG(v)/EWA(d)/EEC-4/EEC(t)/EED-2/EWA(h)/  
EWG(k) Pm-4/Pn-4/Pz-6/Pe-5/Pac-4/Pi-4/Pj-4/Pk-4/Pl-4/Pae-2/PeB JHB/  
ACCESSION NR: AR5001317 GW/NR S/0269/64/000/010/0051/0051

SOURCE: Ref. zh. Astronimiya. Otdel'nyy vypusk, Abs. 10.51.343

AUTHOR: Pupyshev, Yu. A.; Bel'kovich, O. I. B

TITLE: Frequency dependence of the number and space factor in slant meteor propagation

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln, no. 1. Kazan', Kazansk. unt, 1963, 57-69

TOPIC TAGS: meteor propagation, upper atmosphere, radar echo atmospheric electron density, meteor radar echo

TRANSLATION: The authors discuss the relation between the number N of recorded meteors and the space factor  $\mathcal{V} = N \cdot \tau_{mean}$  (where  $\tau_{mean}$  is the duration of the reflected signals) at two wavelengths in the slant propagation of meteors. It has been demonstrated that for a long path the experimental data differ from the results predicted by the theory developed by T. R. Kaiser and C. O. Hines. The apparent reason for the discrepancy is that the signal amplitude is not proportional to the first power of the linear electron density at the reflection  
Card 1/2

L 23299-65

ACCESSION NR: AR5001317

point. Bibliography of 7 items. Authors' summary

SUB CODE: AA

ENCL: 00

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L 23298-65 EEO-2/FSF(h)/EWT(l)/ENG(k)/ENG(v)/EWA(d)/EEC-4/EEC(t)/EED-2/  
EWA(h) Pm-4/Fn-4/Pz-6/Pe-5/Pac-4/Pac-2/Pi-4/Pj-4/Pk-4/Pl-4/Peb JHB/GW/

ACCESSION NR: AR5001318

WR

S/0269/64/000/010/0051/0051

SOURCE: Ref. zh. Astronomiya. Otdel'nyy vypusk, Abs. 10.51.344

AUTHOR: Bel'kovich, O. I.; Stakhov, A. A.

B

TITLE: Investigation of the leading edges of signals in slant meteor propagation

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln, no. 1. Kazan', Kazansk. unt, 1963, 70-79

TOPIC TAGS: upper atmosphere, meteor propagation, radioastronomy, radar signal, meteor echo

TRANSLATION: A statistical analysis of the duration of leading edges of signals reflected from meteor trails during the slant propagation of meteors has been made for two frequencies. A total of 1,300 meteors were recorded. It was found that the mean duration of signals reflected from meteor trails is  $\sim \lambda^2$ , whereas the mean duration of the leading edge is  $\sim \lambda^{1/2}$ . It is demonstrated that for long paths and high frequencies a considerable part of the useful time suitable for

Cord 1/2

L 23298-65

ACCESSION NR: AR5001318

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transmission of information during radio communication is associated with the leading edge. Bibliography of 8 items. I. P.

SUB CODE: AA

ENCL: 00

Card 2/2

11055-55 EWT(d)/EWT(1)/EWT(k)-2/ETA(d)/EWT(-)/SEC(t)/SEC-L/ETA(A) Pa-5/Pa-4/  
Pa-3/Pa-2/Pg-L/Peb/PL-10/PL-4/PL-4 JHR/BN/MS

ACCESSION NR: AR5004877

S/0058/64/000/011/H062/H063

SOURCE: Ref. zh. Fizika, Abs. 11Zh390

AUTHORS: Bel'kovich, O. L.; Stakhov, A. A.

TITLE: Investigation of leading fronts of signals in inclined meteor propagation

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 1, Kazan', Kazansk. un-t, 1963, 70-79

TOPIC TAGS: meteoric radio scatter, meteor observation, pulse rise

TRANSLATION: The authors made a statistical analysis of the leading fronts of signals at two frequencies (in the 40 and 60 Mcs bands) reflected from meteor trails, for inclined meteor propagation. A connection is obtained between the average duration of the front and the registration level. It is shown that the average duration of

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L 31055-65

ACCESSION NR: AR5004877

The signals reflected from meteor trails is proportional to  $\lambda^2$ , whereas the average duration of the leading front is proportional to  $\lambda^{1/2}$  and consequently, with decreasing wavelength, the percentage of the time belonging to the leading front of the signals, which is the signal portion useful for information transmission, will increase. Thus, whereas in the 40 Mcs band the leading fronts account for 8--10% of the duty factor, at 100 Mcs the contribution of the leading fronts to the duty factor increases to 40--50%.

SUB CODE: AA, EC

ENCL: 00

Card

2/2

L 31062-65 EWT(d)/EWT(1)/EWG(v)/EEG(k)-2/EWA(d)/EEC-4/EEG(t)/EWA(h)  
Pn-4/Ps-5/Pg-4/Pac-2/Pt-10/Feb/Pi-4/Pi-4 JHB/GW/WS

ACCESSION NR: AR5004880

S/0058/64/000/011/H063/H063

SOURCE: Ref. zh. Fizika, Abs. 11Zh393

59  
B

AUTHORS: Bel'kovich, O. I.; Sherstnev, A. N.; Volodin, I. N.

TITLE: Distribution of durations of meteoric radio echoes

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 1. Kazan', Kazansk. un-t, 1963, 111-114

TOPIC TAGS: meteoric radio echo, meteor radar observation, meteoric radio scatter

TRANSLATION: A formula is derived for the distribution of the duration of forward-reflected meteoric radio echoes from undercondensed trails, with account of the change in the pressure at the point of maximum ionization. By assuming the meteor mass distribution to obey a power law, with a probability density

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1/3

L 31062-65

ACCESSION NR: AR5004880

$$f(m) = \frac{s-1}{m_0} \left( \frac{m}{m_0} \right)^s$$

where  $m$  -- mass of the meteor corresponding to the minimum registered amplitude  $A_0$ , the authors obtained for the probability  $p$  of the duration distribution of the meteoric radio echoes an expression ( $t \geq t_{\min}$ ) under the condition that  $t \geq t_{\min}$

$$p = \left( -\frac{3(s-1)}{2} \left( \sqrt{1 + \frac{4t}{3\tau_0}} - \sqrt{1 + \frac{4t_{\min}}{3\tau_0}} \right) \right)$$

where  $\tau_0$  -- value corresponding to  $m_0$  and  $t_{\min}$  -- minimum duration of the radio echo registered by the radio apparatus. The plots presented for the duration distribution density of the radio echoes, as well as the histograms of forward reflections from 150 undercondensed meteor trails, yield good agreement between the theoretical and experimental results. G. Osipov.

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2/3

L 31062-65

ACCESSION NR: AR5004880

SUB CODE: AA, EC

ENCL: 00

Card

3/3

1. 31054-65 EWT(d)/EWT(L)/REC(K)-2/EWA(d)/EAG(v)/REC(t)/REC-L Pn-L/Pe-5/Pas-2/  
Pg-L/Pl-15/Pl-L GW/RS

ACCESSION NR: AR5004881

S/0058/64/000/011/H063/H063

SOURCE: Ref. zh. Fizika, Abs. 11Zh394

50  
8

AUTHOR: Bel'kovich, O. I.

TITLE: Accuracy of determination of certain parameters of meteoric activity

CITED SOURCE: Sb. Meteor. rasprostr. radiovoln. No. 1. Kazan', Kazansk. un-t, 1963, 115-126

TOPIC TAGS: meteor observation, meteor radio scatter, meteor activity, meteor density

TRANSLATION: On the basis of a Poisson distribution of the number of registered meteors, it is shown that the mean square error in the observed number of meteors is  $\sigma \approx N^{1/2}$ , where N -- number of meteors observed per unit time, and the relative error will be inversely

Card 1/2

L 31054-65

ACCESSION NR: AR5004861

proportional to the square root of the total number of registered meteors. The accuracy with which the parameter of the meteor mass distribution is determined by comparison of the number of registered meteors in one receiver with two different registration levels is determined, and the optimal ratio of the registration levels is found. A formula is obtained for determining the mean square error of the ratio of the number of meteors registered by two separated radar stations from the same section of the sky. A new method is proposed for observing possible meteor showers but this method does not make it possible to conclude with full reliability that the shower exists; further analysis is necessary when this method is used. G. Osipov.

SUB CODE: AA, EC

ENCL: 00

Card

2/2

L 23302-65 FSF(h)/FSS-2/EWT(1)/EMG(v)/FCO/EWA(d)/EBC-4/SEC(t)/EWA(h)  
Po-4/Pd-1/Pe-5/Pq-4/Pac-4/Pf-4/Pae-2/Peb TT/OW-2/AS

ACCESSION NR: AR5001321

S/0269/64/000/010/0051/0051

SOURCE: Ref. zh. Astronomiya. Otdel'nyy vypusk, Abs. 10.51.347 B

AUTHOR: Bel'kovich, O. I.; Beskin, L. N.

TITLE: Electron density at the reflection point of a meteor stream

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln, no. 1 Kazan', Kazansk. un-t, 1963, 127-138

TOPIC TAGS: meteor trail, meteor stream, upper atmosphere, atmospheric electron density

TRANSLATION: The authors consider the linear electron density  $x$  of a meteor trail at the point of maximum ionization and the electron density at the reflection point. On the basis of assumptions concerning the power-law distribution  $x$  for meteors of different masses and the uniformity of the positions of the reflection point in the trail, the authors have found the absolute distribution density of the values  $y$  and the regression equations  $x(y)$  and  $y(x)$ . It was found that the random values  $x$  at the reflection points conform to the same law as the mass.  
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L 23302-65

ACCESSION NR: AR5001321

Such a dependence was not discovered for the maximum electron densities  $\alpha_{\max}$ . Formulas have been derived for the mean value of the random electron density  $\alpha$  corresponding to trails with a fixed maximum density  $\alpha_{\max}$  and for the mean value of the duration of signals reflected from meteor trails with a fixed maximum electron density. The latter formula can be used in analyzing radiovisual observations of meteors.

SUB CODE: AA

ENCL: 00

Card 2/2

I 39964-65 EWT(d)/EWT(1)/EWG(v)/EWA(d)/EEC-4/EEC(t) Pn-4/Pe-5/Pg-4/Pae-2/Pl-4  
ACCESSION NR: AR5003538 GW S/0269/64/000/011/007C/0070

SOURCE: Ref. zh. Astronomiya. Otd. vyp., Abs. 11.51.482

AUTHORS: Bel'kovich, O. I.

TITLE: Accuracy of determination of certain parameters of meteoric activity

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln, no. 1, Kazan', Kazansk. un-t, 1963, 115-126

TOPIC TAGS: meteor observation, meteoric radio scatter, meteor number

TRANSLATION: On the basis of a Poisson distribution of the number of registered meteors, it is shown that the mean square error in the observed number of meteors is  $\sigma = N^2$ , where N -- number of meteors registered per unit time. The relative error is inversely proportional to the square root of the total number of registered meteors. The accuracy of measurement of the parameter S of the meteor mass distribution, which is determined by comparing the number of meteors observed with the aid of one receiver with two different registration levels, is determined and

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L. 39964-65

ACCESSION NR: AR5003538

the optimal ratio of the registration levels is evaluated. A formula is derived for the determination of the mean square error of the ratio of the number of meteors counted at two radar stations that observe a single section of the sky and are separated from each other. Bibliography, 9 titles. G. Osipov.

SUB CODE: AM, EC

ENCL: 00

Card 2/2

JO

L 27694-66 EWT(1)/ENA(d)/FSS-2 GN/WR

ACC NR: AR6013702

SOURCE CODE: UR/0058/65/000/010/H058/H058

AUTHOR: Bel'kovich, O. I.

TITLE: Equipment calibration for radar observations of meteors <sup>24</sup> 4/5

SOURCE: Ref. zh. Fizika, Abs. 10Zh397

Sb.  
REF SOURCE: Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk. un-t  
1964, 111-113

TOPIC TAGS: radar calibration, amplitude modulation, radar meteor observation

ABSTRACT: A method of calibrating radar equipment <sup>24</sup> by amplitude distribution of meteor echo signals has been suggested. The effect of the initial radius of the trail was considered. [Translation of abstract]  
[NT]

SUB CODE: 17/SUBM DATE: 00

Card 1/1 CC

ACC NR: AR6013703

SOURCE CODE: UR/0058/65/000/010/H058/H058

AUTHOR: Bel'kovich, O. I.; Beskin, L. N.; Pupyshev, Yu. A.

TITLE: Distribution of the number of meteors

SOURCE: Ref. zh. Fizika, Abs. 10Zh398

REF. SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk. un-t, 1964, 114-120

TOPIC TAGS: radar meteor observation, meteor radiant, meteor tracking, meteor stream

ABSTRACT: The authors consider the distribution of the number of observed meteors from day to day. Results of back-scattering observations are presented, from which it follows that in the spring months the distribution of the visible radiants is more uniform than in the summer and fall months, when a large number of swarms is observed. The density of the belts of orbits crossing the earth in May-July and August-September is also uniform. [Translation of abstract]

SUB CODE: ~~04,09~~ 03,17

Card 1/1

ACCESSION NR: AP4043253

S/0203/64/004/004/0706/0716

AUTHOR: Bel'kovich, O. I., Beskin, L. N.

TITLE: Some statistical problems of meteor radio astronomy

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 4, 1964, 706-716

TOPIC TAGS: astronomy, radioastronomy radar, meteor, meteor trail, meteor radar detection

ABSTRACT: The solution of certain statistical problems in meteor radar tracking (distribution of amplitudes and duration of echo signals, distribution of heights of mirror points on meteor trails, etc.) is complicated greatly by the fact that the coordinate of the mirror point on the trail is not known. The amplitude and duration of the echo signal are determined by the linear electron density at the mirror point of the trail, which in turn is dependent on the mass, velocity and disintegration of the meteor body and on the position of the reflecting region on the trail relative to the ionization maximum. An ambiguity therefore arises as a result of the uncertain relationship between the mass of the meteor body and the amplitude (or duration) of the echo signal from the meteor trail. The authors therefore propose a mathematical method for the solution of a number of these statistical problems. The method is based on a study of the relative distributions of the random

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ACCESSION NR: AP4043253

parameters of meteor trails. The method has made it possible to determine the laws of distribution of maximum electron densities, electron densities at the mirror points of the observed meteor trails and the heights of the mirror points. It is shown that the antenna directional diagram has no influence on the distribution of the amplitudes of meteor radar echoes. Orig. art. has: 1 figure, 66 formulas and 1 table.

ASSOCIATION: Astronomicheskaya observatoriya pri Kazanskom gosudarstvennom universitete (Astronomical Observatory at the Kazan State University); Gosudarstvennyy nauchno-issledovatel'skiy institut, Ministerstvo svyaz' SSSR (State Scientific Research Institute, SSSR Ministry of Communications)

SUBMITTED: 13Dec63

ENCL: 00

SUB CODE: AA

NO REF SOV: 004

OTHER: 006

Card

2/2

ACC NR: AR6013704

SOURCE CODE: UR/0058/65/000/010/H058/H058

AUTHOR: Bel'kovich, O. I.

TITLE: Concerning one method of processing radio-visual observations of meteors 12

SOURCE: Ref. zh. Fizika, Abs. 10Zh399

REF. SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk. un-t, 1964, 133-134 66 B

TOPIC TAGS: radar meteor observation, meteor trail, meteor stream, data processing

ABSTRACT: On the basis of a previously derived formula for the average duration of signals reflected from trails with fixed maximum electron density, the author presents the processing of radio-visual observations of the Perseid swarm. [Translation of abstract]

SUB CODE: 03, 09

Card 1/1 LC

L 02218-67 EWI(1) GW

ACC NR: AR6013705

SOURCE CODE: UR/0058/65/000/010/H058/H058

AUTHOR: Bel'kovich, O. I.

TITLE: Average length of meteor trail 12

30  
B

SOURCE: Ref. zh. Fizika, Abs. 10Zh400

REF. SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk. un-t., 1964, 135-140

TOPIC TAGS: meteor trail, radar meteor observation, meteor radiant

ABSTRACT: Taking the initial radius into account, a formula is obtained for the average effective length of a meteor trail. The dependence of the average track length on the wavelength of the employed apparatus, on the distribution of the meteors by mass, and on the cosine of the zenith angle of the radiant is demonstrated. [Translation of abstract]

SUB CODE: .03, 09

Card 1/1 *20*

ACC NR: AR6019483

SOURCE CODE: UR/0269/66/000/002/0075/0075

AUTHOR: Bel'kovich, O. I.; Beskin, L. N.; Pupyshov, Yu. A.

TITLE: Numerical distribution of meteors

SOURCE: Ref. zh. Astronomiya, Abs. 2.51.578

REF SOURCE: Sb. Meteorn. rasprostr. radiovoln, no.2. Kazan', Kazansk. un-t, 1964, 114-120

TOPIC TAGS: radar meteor observation, parameter, *METEOR*

ABSTRACT: An attempt was made to formulate a distribution law for meteors recorded over the same small period of 1-2 hours during several days. The analysis employed the method of rectified diagrams. The best approximation was yielded by the pseudorayleigh law of distribution defined by the integral function

The validity of this law was checked using the results of radar observations at Tomsk, Kazan', and Ottawa. 
$$F(x) = \exp\left[-\left(\frac{x}{\sigma\sqrt{2}}\right)^2\right]$$

Observations conducted on the wavelength of 8.7 m in Kazan' in 1959 were used to analyze the behavior of the parameter  $k$  and the dispersion of the mean volumetric density of radar-recorded dust. It was found when the antenna was pointed south, the central section of the visible radiant was located near the pole of the ecliptic during the entire year. The meteor distribution over the same azimuth and the same periods of

Card 1/2

UDC: 523.5.001

ACC NR: AR6019483

SOURCE CODE: UR/0269/66/000/002/0075/0075

AUTHOR: Bel'kovich, O. I.; Beckin, L. N.; Pupyshv, Yu. A.TITLE: Numerical distribution of meteors<sup>12</sup>

SOURCE: Ref. zh. Astronomiya, Abs. 2.51.578

REF SOURCE: Sb. Meteorn. rasprostr. radiovoln, no.2. Kazan', Kazansk. un-t, 1964, 114-120TOPIC TAGS: radar meteor observation, parameter, *METEOR*

ABSTRACT: An attempt was made to formulate a distribution law for meteors recorded over the same small period of 1-2 hours during several days. The analysis employed the method of rectified diagrams. The best approximation was yielded by the pseudorayleigh law of distribution defined by the integral function

The validity of this law was checked using the results of radar observations at Tomsk, Kazan', and Ottawa.

Observations conducted on the wavelength of 8.7 m in Kazan' in 1959 were used to analyze the behavior of the parameter  $k$  and the dispersion of the mean volumetric density of radar-recorded dust. It was found when the antenna was pointed south, the central section of the visible radiant was located near the pole of the ecliptic during the entire year. The meteor distribution over the same azimuth and the same periods of

$$F(x) = \exp\left[-\left(\frac{x}{\sigma\sqrt{2}}\right)^4\right]$$

Card 1/2

UDC: 523.5.001

ACC NR: AR6019483

time during several days obeyed the pseudorayleigh law whose parameters characterize the deviation of the number of meteors observed in a given region of the sky. The parameter  $k$  did not exhibit a definite dependence upon the time of the day or season. The mean value of  $k$  was 2.5-3.7. The dispersion of  $D > 0.2$  and did not exhibit substantial daily or seasonal variations, i.e., the visible distribution of radiants at the pole of the ecliptic was uniform. When the antenna was pointed north, the band of visible radiants was approximately parallel to the plane of the ecliptic and for all months,  $k$  exhibited definite daily variations. For the morning hours  $k = 4 - 6$ ,  $D_{\mu} \approx 0.10 - 0.05$ . For the evening hours  $k = 1.5 - 2$ ,  $D_{\mu} = 0.4 - 0.5$ . The highest value attained by  $k$  was 3 - 4 during March-April and its lowest value was 1.5 - 2 during August-September. Some increase was also noted in May-June during the noon hours and during August-September at night, which was possibly related to the traversing of a wide meteor belt by the Earth. Bibliography of 11 titles. P. Babadzhanov. Translation of abstract

SUB CODE: 03

Card 2/2

NAUMOVICH, Vasilii Mitrofanovich; BEL'KOVICH, P.I., red.; BARBARANOVA, Ye.,  
red.izd-vs; SIDERKO, N., tekhn.red.

[Theoretical principles of the process of peat briquetting] Teoreticheskie osnovy protsessa briketirovaniia torfa. Minsk, Izd-vo Akad.nauk BSSR, 1960. 195 p. (MIRA 13:8)

1. Chlen-korrespondent AN BSSR; direktor Instituta torfa Akademii nauk BSSR (for Bel'kevich).  
(Peat) (Briquets (Fuel))

BEL'KOVICH, V., kand.biologicheskikh nauk; YABLOKOV, A., kand.biologicheskikh  
NAUK

Ultrasonic "projector." (Un.tekh. 7 no.3:76-77 Mr '63.

(MIRA 16:3)  
(Cetacea--Anatomy) (Orientation) (Ultrasonic waves)

BELOKOVICH, V.M.,  
SHILOVA, S.A.; TROITSKIY, V.B.; MAL'KOV, G.B.; BEL'KOVICH, V.M.

Significance of the mobility of murine forest rodents for the  
distribution of ticks in spring and summer foci of encephalitis.  
Biol. MOIP. Otd. biol. 62 no. 5: 117-118 S-O '57. (MIRA 10:11)  
(TICKS AS CARRIERS OF DISEASE) (PARASITES--MICE)

SHILOVA, S.A.; TROITSKIY, V.B.; MAL'KOV, G.E.; BEL'KOVICH, Y.M. (Moscow)

Significance of the mobility of murine forest rodents for the distribution of the tick *Ixodes persulcatus* P.Sch. in spring and summer foci of encephalitis [with summary in English].  
Zool. zhur. 37 no. 6:931-938 Je '58.

(MIRA 11:7)

1. Tsentral'nyy nauchno-issledovatel'skiy dezinfektsionnyy institut, Moskva.

(Mice as carriers of disease)  
(Ticks)

BEL'KOVICH, V.M.; YABLONOV, A.V.

"Biology and hunting of marine mammals;" Proceedings of the All-Union  
Scientific Institute of Maritime Fisheries and Oceanography. Vol. 33.  
Reviewed by V.M. Bel'kovich, A.V. Iablokov. Zool.zhur. 38 no.6:952-  
954 Je '59. (MIRA 12:11)

(Whales)

AUTHOR: Bel'kovich, V. M.

SOV/20-127-4-57/60

TITLE: On the Mechanism of Color Variation in *Delphinapterus leucas* Pall.

PERIODICAL: Doklady Akademii nauk SSSR, 1959; Vol 127, Nr 4; pp 928 - 930 (USSR)

ABSTRACT: The *Delphinapterus leucas* Pall. is a typical northern dolphin. One of the properties of this species is the variation of the color according to age: young animals are dark, grown up animals almost purely white. In the course of several years the author found out that embryos soon to be born and new-born *Delphinapteri leucas* Pall. are not at all dark, slate-colored (Refs 1, 2-9, 11, 13) but light grey, brownish. The growing babies become dark. No author mentions this phenomenon. Not even papers on the histology of the skin refer to the problem mentioned in the title. This fact caused the author to write this paper. The skin of the *Delphinapterus leucas* Pall., as the skin of all cetacea, has no hair, sebaceous glands, and perspiration glands. The pigment is concentrated in the epidermis which is 7-9 mm thick and constitutes 51-68% of the total

Card 1/3

On the Mechanism of Color Variation in *Delphinapterus leucas* Pall. SOV/20-127-4-57/60

weight of the skin in the case of grown up animals (Ref 4). No mammal living on land shows a similar development of the epidermis. The color variation of the *Delphinapterus leucas* Pall. proceeds as follows: With new-born babies the majority of the pigment is concentrated in the lower part of the epidermal ridges (Fig 1). There is less pigment in the middle part as well as in higher layers. The light grey, brownish coloring is caused by the distribution of the pigment, its majority being at the epidermal base at the border of the derm, and an intense development of the horny layer. After birth the young animals grow rapidly; so does their epidermis. The thickness of the epidermis is little changed in the case of a young 235 cm long but the ratio of composition has considerably changed; the horny layer shrunk to  $1/5$ , whereas the lower parts of the epidermal ridges became 4-5 times wider. The quantity of pigment in the ridges decreased considerably. The growing cells have by then distributed the pigment all over the thickness of the epidermis. The total coloring of the young becomes dark grey, almost black. The subsequent lighter coloring

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On the Mechanism of Color Variation in Delphinapterus leucas Pall. SOV/20-127-4-57/60

is a result of the continuous growth of the animal and its skin. No new pigment is formed so that its quantity per surface unit decreases gradually. This is caused by its gradual discharge into the peeling horny layer and the distribution of the remaining decreasing pigment over an increasing area. After a number of color transitions the pigment quantity in the skin of Delphinapterus leucas Pall. becomes inconsiderably small. After this quantity has disappeared altogether the Delphinapterus leucas Pall. becomes all white. There are 1 figure and 15 references, 13 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtseva Akademii nauk SSSR (Institute of Animal Morphology ineni A. N. Severtsov of the Academy of Sciences, USSR)

PRESENTED: April 18, 1959, by I. I. Shmal'gauzen; Academician

SUBMITTED: April 17, 1959

Card 3/3

BEL'KOVICH, V.M.

ecologic-morphological characteristics of adaptations for  
flight in the burgomaster (*Larus hyperboreus*) and the long-  
tailed skua (*Stercorarius longicaudus*). Trudy Inst. morf.  
zhiv. no. 32:131-141 '60. (MIA 14:2)  
(Gulls) (Flight) (Birds--Anatomy)

BEL'KOVICH, V.M.; YABLOKOV, A.V.

First All-Union Conference on the Study of Marine Mammals. Zool.  
shur. 39 no.7:1119-1120 JI '60. (MIRA 13:7)  
(Marine mammals--Congresses)

BEL'KOVICH, V.M.

Some biological observations on the white whale from the airplane.  
Zool. zhur. 39 no.9:1414-1422 S '60. (MIRA 13:9)

1. Institute of Animal Morphology, U.S.S.R. Academy of Sciences, Moscow.  
(Russia, Northern--White whale)

YABLOKOV, A.V.; kand.biologicheskikh nauk; BEL'KOVICH, V.M.

Studying and hunting marine mammals in the U.S.S.R. Priroda  
49 no. 12:16 D '60. (MIRA 13:12)

1. Institut morfologii zhivotnykh im. A.N. Severtsova, Moskva.  
(Marine fauna)

BEL'KOVICH, V.M.

Physical thermoregulation in the white whale (*Delphinapterus leucas*, Pall.). Trudy sov. Ikht. kom. no.12:50-59 '61. (MIRA 14:6)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR.  
(White whale) (Body temperature--Regulation)

BEL'KOVICH, V.M.; YABLOKOV, A.V., kand.biol.nauk

Among the walruses. Priroda 50 no. 3:50-56 Mr '61.

(MIRA 14:2)

1. Institut morfologii zhivotnykh im.A.N. Severtsova AN  
SSSR, Moskva,

(Walruses)

BEL'KOVICH, V. M.

Dissertation defended at the Zoological Institute for the academic  
degree of Candidate of Biological Sciences: (1962)

"Adapt ve Structural Features of the Skin Cover of Water Mammals."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

BEL'KOVICH, V.M., kand.biolog.nauk; YABL'KOV, A.V., kand.biolog. nauk

Youth of an old science; alliance between animal morphology and  
technology. Priroda 52 no.8:20-30 Ag '63. (MIRA 16:9)

1. Institut morfologii zhivotnykh imeni Severtsova AN SSSR, Moskva.  
(Morphology (Animals)) (Bionics)

KLEYNENBERG Sergey Yevgen'yevich; YABLOKOV, Aleksey Vladimirovich;  
HEL'KULICH, Vsevolod Mikhaylovic ; TARASEVICH, Mariya  
Nikolayevna; Primalni uchastiye: DELYAMURE, S.L.;  
ZHEMKOVA, Z.P.; MAKAROV, B.M., red.

[Beluga; a monographic study on the species] Belukha; opyt  
monograficheskogo issledovaniia vida. [By] S.E.Kleinenberg i  
dr. Moskva, Izd-vo "Nauka," 1964. 455 p. (MIRA 17:4)

BEL'KOVICH, Vsevolod Mikhaylovich; KLEYNENBERG, Sergey Yevgen'yevich;  
YABLOKOV, Aleksey Vladimirovich; LIVANOV, A., red.

[Mystery of the ocean] Zagadka okeana. Moskva, Molodaia  
gvardiia, 1965. 174 p. (MIRA 18:12)

BELKOVY, I.I., aspirant; MUTOVIN, V.I., nauchnyy rukovoditel', doktor veter.  
nauk

Effect of milking apparatus and units on the mammary glands in  
cows. Veterinariia 42 no.10:63-65 0 '65.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy  
sanitarii. (MIRA 18:10)

ADDITIONAL INFO: AP5015320

UR/0286/65/0 67009/0076/6376  
681.121.48

AUTHOR: Belikovskaya, I. N. Belikov, Igor I. Moynov, V. Ya.

TITLE: A turbine flowmeter class 42, No. 170702

SOURCE: Aviatsiya i Probnoye Povolnyeh Zhurnal, no. 9, 1967, 76

TOPIC TAGS: Flowmeter; flow measurement; turbine rotor

ABSTRACT: This Author's Certificate introduces: 1. A turbine flowmeter which consists of a pipe containing the fluid whose flow is to be measured, a rotor which turns at a rate proportional to the volumetric flow, and a tachometer which eliminates bearings in the flowmeter, the rotor is located between a swirler and a jet straightener. These devices create the pressure difference which is necessary for balancing the drag of the rotor. 2. A modification of this flow meter in which a jet tube is mounted in the center of the swirler. The rotor acts as a valve with negative feedback with respect to the auxiliary stream created by the jet tube. Thus the forces applied to the rotor are balanced and equilibrium is achieved within a wide range of variations in the flow and physical properties of the

Cont-173

REF ID: A6501320

ACCESSION NR: A6501320

STATUS: Being processed

ASSOCIATION: (Central Order of the Red Banner Institute of Mechanical Engineering)

SUBMITTED: 09Jan69

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SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/3

L-51509-65

ACCESSION NR: AP5015320

ENCLOSURE: 01 0

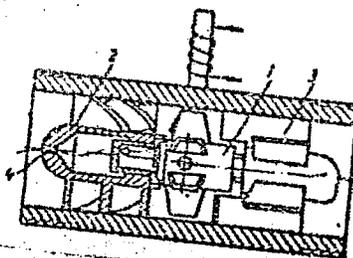


Fig. 1. 1--rotor; 2--swirler; 3--jet straightener; 4--jet tube

*SW*  
Card 3/3

BELKOVSKI, S.

"Industrial Construction of Concrete Buildings" p. 1 (ARKHITEKTURA I STROITELSTVO)  
Vol. 2, No. 2, 1952, Sofiya, Bulgaria.

SO: Monthly List of East European Accessions L.C. Vol. 2, Nov. 1953, Uncl.

BELKOVSKI, S.

"More correct directives in the planning of some buildings."  
p.12 (Tekhnika, Vol. 6, no. 8, 1957, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

BELKOVSKIY, A.I.

Precise determination of the elementary cell parameters and temperature of the  $\alpha \rightleftharpoons \beta$  -transformation of quartzes from some deposits in the Central and Southern Ural Mountains.  
Dokl. AN SSSR 154 no.1:111-113 Ja'64. (MIRA 17:2)

1. Ural'skoye geologicheskoye upravleniye. Predstavleno akademikom N.V. Belovym.

1. CHEREP, I. P., BELKOVSKIY, G.V.
2. USSR (600)
4. Cement Industries
7. Increasing productive capacity of cement mills at the "Proletarian" factory  
TSement 18/No. 1, 1952  
Tsementnyy Zavod "Proletariy"
9. Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

BELKOVSKIY, G.V.

Efficiency suggestions. TSement 29 no.1:20 Ja-F '63. (MIRA 16:2)

1. TSementnyy zavod "Orel".  
(Cement plants—Equipment and supplies)

BELKOWA, Halina

Evaluating method of the wearing properties of textile goods  
based on the results of experimental use. Przegl włokien  
16 no.10:535-539 0 '62.

1. Instytut Włokiennictwa, Lodz.

P/034/63/000/001/001/002  
D201/D308

AUTHOR: Bełkowski, Czesław, Master of Engineering  
TITLE: Electrical control equipment of unit construction  
with normalized signal

PERIODICAL: Pomiary. Automatyka. Kontrola, <sup>Vol 9</sup> no. 1, 1963, 3-7

TEXT: The author describes the principles of design of an electrical control equipment having a d.c. normalized signal 0-5 mA. The system is of unit construction for use in automatic control of continuous technological industrial processes. The basic system units are as follows: sensing arrangements and transducers, signal converters including operational units and electrical and pneumatic output stages. All system units utilize standard types of boxes (when located near or at the controlled objects) and racks with standardized control panel dimensions (multiples of 20 mm). All electrical circuits use semiconductor elements and transistorized magnetic elements of Polish design and manufacture. Two variants of control system are envisaged: electro-pneumatic and electrical only, both

Card 1/2

Electrical control equipment ...

P/034/63/000/001/001/002  
D201/D308

with floating ground. The descriptions and specifications of the following units are given in detail: voltage, current and resistance transducers, power transducer, summing unit, universal continuous input regulator, on-off regulator. All units were developed and tested by Zakład Automatyki i Miernictwa Instytutu Elektrotechniki (Laboratory of Automation and Measurements of the Institute of Electrical Engineering) with the exception of the power transducer which was developed at the Katedra Automatyki i Telemekhaniki PW (Department of Automation and Telemechanics of the Warsaw Polytechnic). All except the square root of function transducer, multiplier and differentiator which are in design stages, have undergone practical tests. Further work on extending the range of possible applications is in progress. There are 15 figures.

ASSOCIATION: Zakład Automatyki i Miernictwa Instytutu Elektrotechniki (Laboratory of Automation and Measurements of the Institute of Electrical Engineering)

Card 2/2

EELKOWSKI, C.

"Trends in the development of Polish conceptions in switchgear design." p. 446.  
(Przegląd Elektrotechniczny, Vol. 29, no. 11/12, Dec 53, Warszawa)

SO: Monthly List of East European Accessions, Vol 3 No 6 Library of Congress Jun 54 Uncl

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 (1931) Béla. Radiószonda-felvételek Magyarországon. [Radiosondes in Hungary.]  
 1931, 34(1-2):1-8, Jan.-Feb. 1930. 3 figs., 8 refs. DWB—The Meteorological Institute  
 in Hungary made use of the Lange radiosonde to make occasional soundings of the upper air,  
 until Dec. 1, 1929, when due to a subsidy from the Ministry of Transport and Communications,  
 it became possible to purchase enough Valais instruments to make regular flights. After  
 the personnel became familiar with these instruments, the advantages of the new radiosondes  
 (used in Finland since 1931) became apparent. Equipment is illustrated and data from a  
 sounding during a peculiar weather situation (Jan. 6, 1930) presented in connection with a  
 discussion of the synoptic conditions at that time. Subject Headings: Radiosondes, Upper  
 air analysis, Hungary.—M. R.

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ASH-514 METALLURGICAL LITERATURE CLASSIFICATION

6 X 2+1

DLA, DILA

Meteorological Abst.  
Vol. 5 No. 1  
Jan. 1954  
Part I  
Works of Special  
Interest

✓ 51-1 ✓ 551.5:63(02) 551.582(439.1)  
\*Aujcsaky, László; Herényi, Lajos and HELL, Péla, Mezőgazdasági meteorológia; Az agrometeorológiai ismeretek kézikönyve. [Agricultural meteorology; an agrometeorological handbook.] Budapest, Akadémiai Kiadó, 1951. 550 p. 300 illus. refs. DLC—This text is intended for the general reading public, the college student and the research scientist as well. It comprises a useful handbook of meteorology, climatology and their agricultural applications, especially for those working on Central European crop ecology. In Pt. 1 (p. 15-271) basic information on meteorological elements, meteorological research, atmospheric dynamics, climatology and world climate is presented in a clear and analytical manner. A special section deals with the climate of Hungary (illustrated with numerous climatic charts). Pt. 2 (p. 275-417) deals with atmospheric phenomena and climatic factors from the point of view of their effect on the development of plants; with weather requirements of plants at various stages of their development, with microclimate and with the utilization of meteorological information for agricultural purposes. Pt. 3 (p. 421-541) contains data on the ecology of 17 principal crops grown in Hungary. It also includes a chapter on the dependence of growing climate on soil properties and one on forest climate. The use of this extensive study as a reference book is facilitated by a subject index. *Subject Headings:* 1. Meteorology 2. Climate of Hungary 3. Agricultural meteorology 4. Plant ecology 5. Textbooks 6. Hungary.—G.T.

1971, 1972

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V. B. Bely. Geshkottai módszerrel a hőmérsékleti advekció meghatározására [Working  
methods for determining thermal advection] *Izdatok* 31:12-132 (1967)  
Explained whereby thermal advection can be determined by means of the thermobaric fields in  
charts of 500/1000 mb relative and 700 mb absolute topography. A summary of the method  
and computation of thermal advection values from various topographic charts is given.

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Current problems of synoptic aerology. p. 115  
Vol. 53, no. 2, Mar./Apr. 1954

Sessions of the Scientific Council of the Hungarian Society of Meteorology. p. 120

so. EAST EUROPEAN ACCESSIONS LIST Vol. 5, no. 7, July 1956

✓ Hell, Béla. A troposféra rétegzettségéről. [Stratification of the troposphere.] *Bevezetés az 1933-34-es évi időjárás-kutatásokról* (General as Hungary. *Országos Meteorológiai Intézet, Hivatalos Kiadványok*, Vol. 20, pub. Budapest, 1935). p. 239-259. 8 figs., table, 9 refs. Russian and German summaries p. 230-251. DWR—Observes tropospheric stratification as shown by the vertical distribution of temperature, relative humidity and wind. The graphs presented show modification of the radiational layer during a cold front passage (Budapest, Aug. 14-20, 1934); vertical distribution of temperature gradient over Budapest (1950-1954) up to 10 km; vertical distribution of yearly amplitude of temperature variation at 3 a.m. and 7 a.m.; vertical distribution of relative humidity over Budapest up to 10 km (1950-1954); wind velocity distribution up to 15 km in winter and summer (1950-1954) and vertical distribution of differences between morning and noon-time wind speed. *Subject headings:* 1. Tropospheric structure. 2. Profiles of meteorological elements. 3. Budapest, Hungary. —G.L.

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Vol. 59, no. 5, Sept./Oct. 1955

IDOJARAS

Budapest

SOURCE: Monthly list of East European Accessions, (EEAL), LC,  
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Aerologic work of Gyorgy Marczell. p. 137. IDOJARAS.  
(Meteorologiai Intezet es Magyar Meteorologiai Tarsasag) Bud-  
apest. Vol. 60, no. 3, May/June 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress.  
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(Meteorologiai Intezet es Magyar Meteorologiai Tarsasag) Budapest,  
Vol. 60, No. 3, May/June 1956

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